



Steve Klimpel

CVFI, CFEI, NFPA 1033, NFPA, 310S, WETT Level II

Operations Manager, Northern and Eastern Ontario/Atlantic Canada

Fire and Explosion Investigator

OFFICE

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CONTACT

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Accepted as an expert witness by the Ontario Superior Court, Steve specializes in fires and explosions and has conducted investigations for over 1,000 fire and explosion scenes. His professional experience includes over 10 years with the Office of the Fire Marshal, Ministry of Community Safety and Correctional Services, and extensive experience in automotive repair and inspection.

CERTIFICATIONS

- NFPA 1033 Certification (2011)
- Standard for Professional Qualifications for Fire Investigator

TECHNICAL AFFILIATIONS

- Canadian Automotive Technician
 - National Association of Fire Investigators (NAFI)
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EDUCATION

Carleton University

Fire Investigation – Continuing Education
Mono, Ontario, Canada
2009 – Present

Durham College

Automotive Service Technician – Apprenticeship Program
Oshawa, Ontario, Canada
1995

Fleming College

Fire Safety and Security Management
Peterborough, Ontario, Canada
2001

Fleming College

Police Foundations Certificate Program
Peterborough, Ontario, Canada
2001

CITATIONS

Fire Marshal's Citation – Outstanding Case Management in Large Loss in Toronto
(2011)

PROFESSIONAL EXPERIENCE

Fire and Explosion Investigator

Operations Manager Northern and Eastern Ontario/Atlantic Canada

OCI Group (Formerly Origin and Cause Incorporated)

Kingston, Ontario

June 2014 – Present

Fire Investigator

Office of the Fire Marshal Ministry of Community Safety and Correctional Services

April 2009 – May 2014

- Responsible for the investigation of fire/explosion scenes to determine origin, cause & circumstances – including fatal fires, gaseous explosions, large loss fires and other incidents as directed

Fleet Management Coordinator

Office of the Fire Marshal Ministry of Community Safety and Correctional Services

January 2003 – April 2009

- Responsible for the management of 150 vehicles and 55 fire trucks throughout province

Transportation Enforcement Officer 2

Ministry of Transportation

Whitby and Bowmanville, Ontario

April 2001 – January 2003

- Duties include weigh commercial vehicles using rolling and portable scales, assist in level 1 and level 3 C.V.S.A. inspections, collect driver documents, complete portions of C.V.I.R., check C.V.O.R. status, driver and vehicle certification on Ministry main frame, to ensure compliance with provincial legislation
- Participated in several truck safety blitzes where other provincial enforcement personnel were present including Ministry of Environment and Energy SMOG Patrol Officers

Refuse Truck Operator/Truck Mechanic

Municipality of Clarington

Bowmanville, Ontario

March 1997 – September 1999

- Responsible for collecting refuse from areas within the Municipality of Clarington
- Perform various repairs on heavy refuse trucks including hydraulic diagnostics and repairs, brake system repairs and radio repairs

Automotive Painter

Paint Plas

Ajax, Ontario

November 1995 – February 1997

- Lead hand on midnight shift – responsible for painting various automotive parts for various vehicle manufactures with solvent based paint
- Responsible to operate and maintain painting robots throughout paint system

Ambulance Communications Dispatcher

Ministry of Health

Oshawa, ON (Part-time – GO TEMP)

June 1993 – October 1994

- Responsible for receiving calls for medical service and dispatching land ambulances throughout Durham Region
- Responsible for coordinating patient transfer from various hospitals around the Durham Region

Class “A” Apprentice Nurse

Chevrolet Oldsmobile Cadillac

Whitby, Ontario

October 1993 – November 1995

- Class “A” apprentice – perform various duties in automotive repair facility, including engine diagnosis and repairs, brake system repairs, steering and drive train analysis and repairs, electrical diagnosis and repairs

Class “A” Apprentice

Rossland Square Texaco

Oshawa, Ontario

July 1991 – October 1993

- Perform various duties in automotive repair facility, including engine diagnosis and repairs, brake system repairs, steering and drive train analysis and repairs, electrical diagnosis and repairs

Mechanic Apprentice

Kingvar Chrysler

Courtice, Ontario

June 1990 – July 1991

- Perform various duties in automotive repair facility including used and new vehicle clean up (PDI)

FURTHER TRAINING & EDUCATION

Fire Prevention Officer 101: Legislation and Standards

Ontario Fire College

2012 (1 Day)

- Topics covered included Legislation that applies to fire departments, Occupational Health and Safety Act requirements as it applied to protective clothing for firefighters, mandatory requirements for PPE, requirements of the Fire Prevention Officer, municipal by-laws, reporting of fire events to the OFM. Review the FFPA and discuss authority for inspections and investigations.

Advanced Fire Cause and Determination Course – NFPA 1033 Certification: Standard for Professional Qualifications for Fire Investigator

Ontario Fire College

March 2009 (15 Days)

April 2009 – Present (Practical Field Experience)

March 2011 (Written Exam)

2012 (Refresher, 15 Days)

Course covering topics dealing with Chemistry of Fire, Spontaneous Combustion,

Building Construction, Interviewing and Statement Taking, Vehicle Fires, Comprehensive Fire Investigations, Environmental Impact, Explosion Investigation, Clandestine Laboratory Fires, Origin and Cause, Criminal Code and Other Related Statutes, Roles and Responsibilities and the FPPA, Search Warrants, Motives, Fraud, NFPA 921, Incendiary Devices, High Temperature Accelerants as well as Related Case Studies.

(This standard identifies the professional level of performance required for Fire Investigators. It specifically identifies the job performance requirements necessary to perform as a Fire Investigator)

NFPA 921 Certified Fire and Explosion Investigator

2012 (5 Days)

Topics covered included the legal requirements to conduct a fire scene examination, fire chemistry, fire pattern analysis, identifying and collecting physical evidence, origin and cause determination, fire suppression techniques. This course also consisted of participating in five live burn scenarios' and a practical scene examination.

St. John Ambulance – Standard First Aid/CPR

St. John Ambulance, Cobourg, Ontario

2011 (3 Days)

National Forum on Forensic Evidence in Fire Investigations: Criminal and Civil Proceedings

2011 (1 Day)

Expert panel examining key challenges and cutting edge issues within the fire investigation field. Keynote speakers include John LENTINI (Certified Fire Investigator), The Hon. Justice Stephen GOUDGE (Court of Appeal for Ontario) and Chris WILLIAMS (Assistant Deputy Fire Marshal, Office of the Fire Marshal, Ontario).

Investigation of Appliances and Small Equipment Failures Course

Canadian Association of Fire Investigators, Toronto Police Association

2010 (1 Day)

Course covering topics such as how to identify failures in common household appliances, current recalls and design of new energy efficient appliances, how to identify types of light fixtures and how they are designed to operate and end of life.

Other topics included new trends and products in HVAC and issues associated with mechanical devices in confined compartments.

ISN Interviewing and Interrogation Course

Peterborough Police Service

2010 (3 Days)

Course covering topics as Law Relevant to Interviewing, Cognitive Interviewing, Confession Techniques, Detecting Deception, Interviewing Strategies – Behavioral Questioning, Personality Considerations/Assessments, False Confessions and Interviewing the Mentally Ill.

Death Investigation Course

Durham Regional Police, Police Learning Centre

2010 (5 Days)

Course covering topics dealing with Attempted Suicide, Coroners Act, Forensic Pathology, Pediatric Death Investigations, Water Recoveries, Death Scene Management and Security, Archaeological Forensic Recovery of Remains, Equivocal Deaths and applicable case law.

General Investigation Techniques

Durham Regional Police, Police Learning Centre

2009 (10 Days)

Course covering topics dealing with Crime Scene Management, Canvassing, Interviewing and Interrogation, Forensic Identification, Operational Planning, Evidence Collection, Notebooks, Search and Seizure with and without warrant, Eyewitness Identification, Terrorism and applicable case law.

Forensic Recovery of Human Remains

Ontario Police College

2009 (5 Days)

Course covering topics dealing with Forensics, Forensic Recovery of Surface Scattered Human Remains and Clandestine Burials, Forensic Anthropology and the Fatal Fire Victim, Forensic Recovery of a Large Vehicle Crash Site, Animal Scattering Patterns and applicable case law.

Origin and Cause Determination

Ontario Fire College, Port Colborne, Ontario
September 2004 (3 Days)

Topics included:

- Office of the Fire Marshal (Fire Patterns & Cause Determination)
 - Forensic Investigators (Evidence Identification & Collection)
 - Crime Scene Management, Insurance Investigations
 - Private Sector Fire Investigations
 - Conduct live burn scene examinations
 - Car Fire examinations
 - Fire pattern demonstrations
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PRESENTATIONS

Origin and Cause and Duties of the Ontario Fire Marshal Fire Investigators

Durham College, Fire and Life Safety Program
Oshawa, Ontario
November 2013 (4 Hours)

Topics included:

- Scientific Method, Sources of Ignition, Fire Patterns, Explosions, Evidence Collection, Fuel Sources, Ignition Sources, Hording, Fire Department Overhaul, Note taking, PPE, Safety at Fire and Explosion Scenes, Judicial System in Canada

Origin and Cause

Brock Township Fire Department, Station #3, Brock Township, Ontario
February 2012 (2.5 Hours)

Topics included:

- Scientific Method, Sources of Ignition, Fire Patterns, Explosions, Evidence Collection, Fuel Sources, Ignition Sources, Hording, Fire Department Overhaul, Note Taking

Origin and Cause

Law and Justice Students, Fleming College, Peterborough, Ontario
February 2012 (2.5 Hours)

Topics included:

- Scientific Method, Sources of Ignition, Fire Patterns, Explosions, Evidence Collection, Fuel Sources, Ignition Sources, Hording, Fire Department Overhaul, Note Taking, Career Planning, Volunteering in the Community

Origin and Cause

Brock Township Fire Department, Station #1, Brock Township, Ontario
January 2012 (2.5 hours)

Topics included:

- Scientific Method, Sources of Ignition, Fire Patterns, Explosions, Evidence Collection, Fuel Sources, Hording, and Fire Department Overhaul and Note Taking

Origin and Cause

Port Hope Fire Department, Station #2, Port Hope, Ontario
September 2011 (2 Hours)

Topics included:

- Scientific Method, Sources of Ignition, Fire Patterns, Explosions, Evidence Collection, Fuel Sources, Hording, and Fire Department Overhaul.

Origin and Cause

Port Hope Fire Department, Station #3, Port Hope, Ontario
October 2011 (2 Hours)

Topics included:

- Scientific Method, Sources of Ignition, Fire Patterns, Explosions, Evidence Collection, Fuel Sources, Hording, and Fire Department Overhaul

Demonstration Burns

Ontario Power Generation – Wesleyville Site

June 2013

- Set up and burn five live burn cells involving common furnishings found in residential dwellings, using accelerants in two cells and an open flame to combustibles in three – sponsored by FESTI

Ontario Fire College

June 2013

- View and determine fire origin and cause of fires previously set in four burn cells using common residential materials (bedding, linen, furnishings)

October 2012

- Four live burns within the burn house, donned SCBA and in building at the ignition of the fires and observe the growth of the fire, smoke and thermal layer (750 degrees C.). Observed chimney effect and how thermal layer fills ceiling layer and drops downward to floor level as fire evolves. Observed various fire extinguishing methods including hydraulic, positive and negative pressure ventilation
- Ignition of cooking oil on the surface of a 240VAC stove experiment
- Live investigation of automobiles – determine origin and cause of fire within automobile

August 2012

- Determining flash point of a Volatile Liquid (gasoline)
- Spontaneous combustion experiment
- Live burns using cotton and oxygen enriched cotton clothing
- Smoldering cigarette experiment in various pieces of polyurethane furniture

October 2011

- Effects on natural gas valve on appliances when pressure increased and propane (LPG) used as fuel

June 2011

- Multiple live vehicle burns accelerated with an accelerant and paper products. Two vehicles burnt with engine running to observe vehicle electronics and engine performance failures as fire spreads
- Perform vehicle fire investigation on vehicle previous burnt at the OFC. Process vehicle and determine area of fire origin and effects of ventilation and fire spread
- Perform vehicle fire investigation on previously burnt vehicle with two pigs in the vehicle. Identified pig remains in the vehicle and systematic removal of remains

using X-Ray equipment and assigned tools

November 2010

- Exercise in recovery of smoke alarm components – Process burn cell utilizing hand tools, digital photography and hand written field notes. Exercise required the use of OFM issued portable sifter to locate small components from a variety of smoke alarms

October 2009

- Live compartment burns at OFC – Flashover demonstration of wood shed style structures

March 2009

- Heat transfer demonstration (Bunsen burner on metal rod)
- Ignition temperatures of various sources (candle, natural gas, propane torch, match flame, cigarette)
- Determining Flashpoint of a Volatile liquid (Gasoline)
- Spontaneous combustion experiment
- Car fire total burn – surface burn pattern demonstration
- Oxygen enriched clothing fire
- Paper fire – light bulb as ignition source
- Cloth fire – light bulb as ignition source
- Couch – simulated careless smoking fire
- Living room Furniture – accelerated by Contact Cement
- Surface burn pattern demonstration – Linoleum and carpet
- Surface burn pattern demonstration – Gasoline on plywood linoleum and carpet
- Mixing pool chlorine and triethylmene
- Glycerol and potassium permanganate in an aluminum baking pan
- Potassium chlorate and equal parts sugar and hydrochloric acid in an aluminum baking pan
- Living Room couch – accelerated by Contact Cement
- Car fire – Passenger Compartment – accelerated by newspaper
- Car fire – multiple points of origin – accelerated by contact cement
- Car fire – Total Burn
- Car fire – Accelerated w/potato chips
- Car fire – Accelerated w/contact cement, total burn

- Living room – simulated smoking fire in couch

Ontario Police College

June 2009

- Pig fire – Burn maggots and pig using gasoline and igniting with road flare

May 2009

- Living room: Couch fire accelerated with BBQ fluid
- Bedroom: Simulated electrical fire (clothes iron)
- Living room: Contact cement trailer on furniture
- Bedroom: Bedding accelerated with newspaper
- Bedroom: Bedding & mattress accelerated with contact cement
- Vehicle: Cargo compartment/trunk/newspaper trailer, accelerated with contact cement
- Bedroom: Simulated smoking fire in mattress
- Kitchen: Accelerated with newspaper & BBQ starter
- Vehicle: Passenger compartment accelerated w/newspaper and BBQ starter
- Vehicle: Passenger compartment accelerated w/potato chips
- Vehicle: Passenger compartment accelerated with brake fluid and granular chlorine
- Vehicle: Passenger compartment accelerated with BBQ starter fluid on leather upholstery
- Vehicle: Passenger compartment using newspaper trailer, accelerated with electrical short in heater motor
- Vehicle: Passenger compartment using black powder and ignited with road flare
- Vehicle: Engine compartment using shredded newspaper and BBQ lighter fluid ignited by crossing ignition wires and creating a backfire through throttle body
- Vehicle: Engine compartment ignited by using brake fluid and granular chlorine
- Vehicle: Passenger compartment accelerated with BBQ starter fluid on leather upholstery
- Vehicle: Passenger compartment using newspaper trailer, accelerated with electrical short in heater motor
- Vehicle: Passenger compartment using black powder and ignited with road flare
- Vehicle: Engine compartment using shredded newspaper and BBQ lighter fluid ignited by crossing ignition wires and creating a backfire through throttle body
- Vehicle: Engine compartment ignited by using brake fluid and granular chlorine